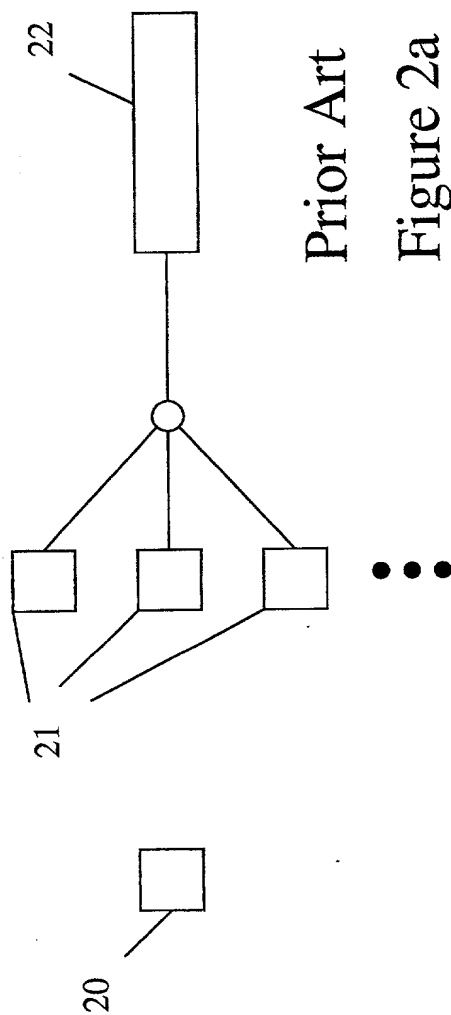


PRIOR ART

FIGURE 1



Prior Art
Figure 2a

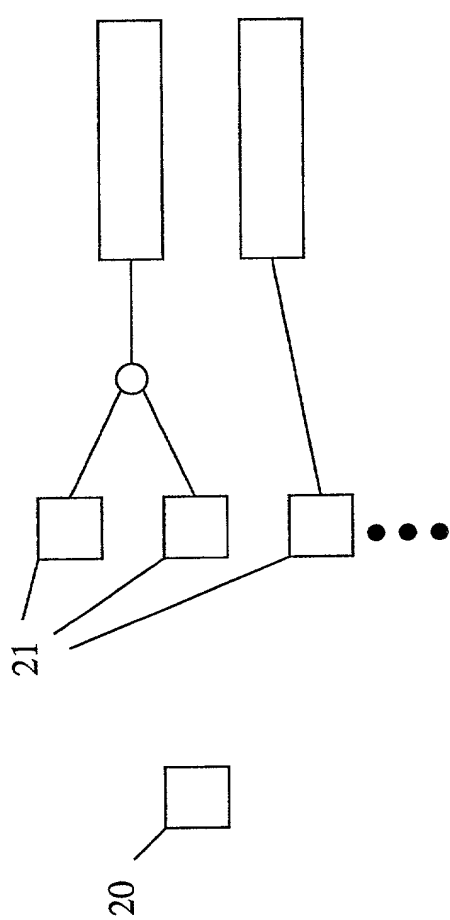
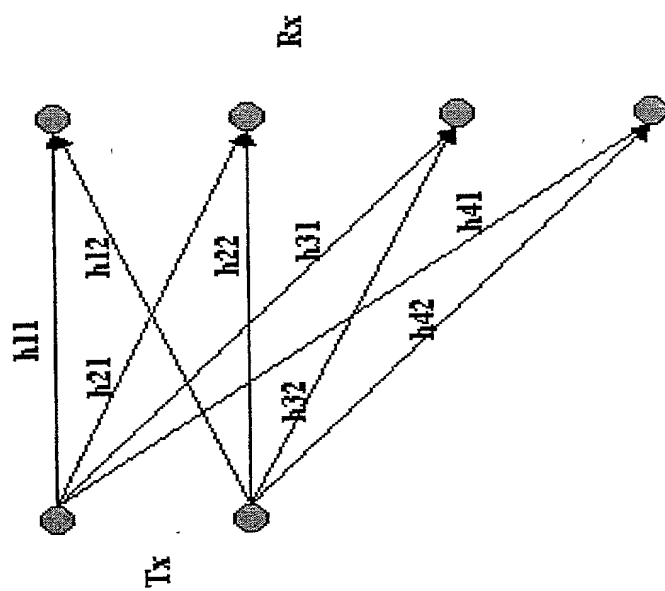
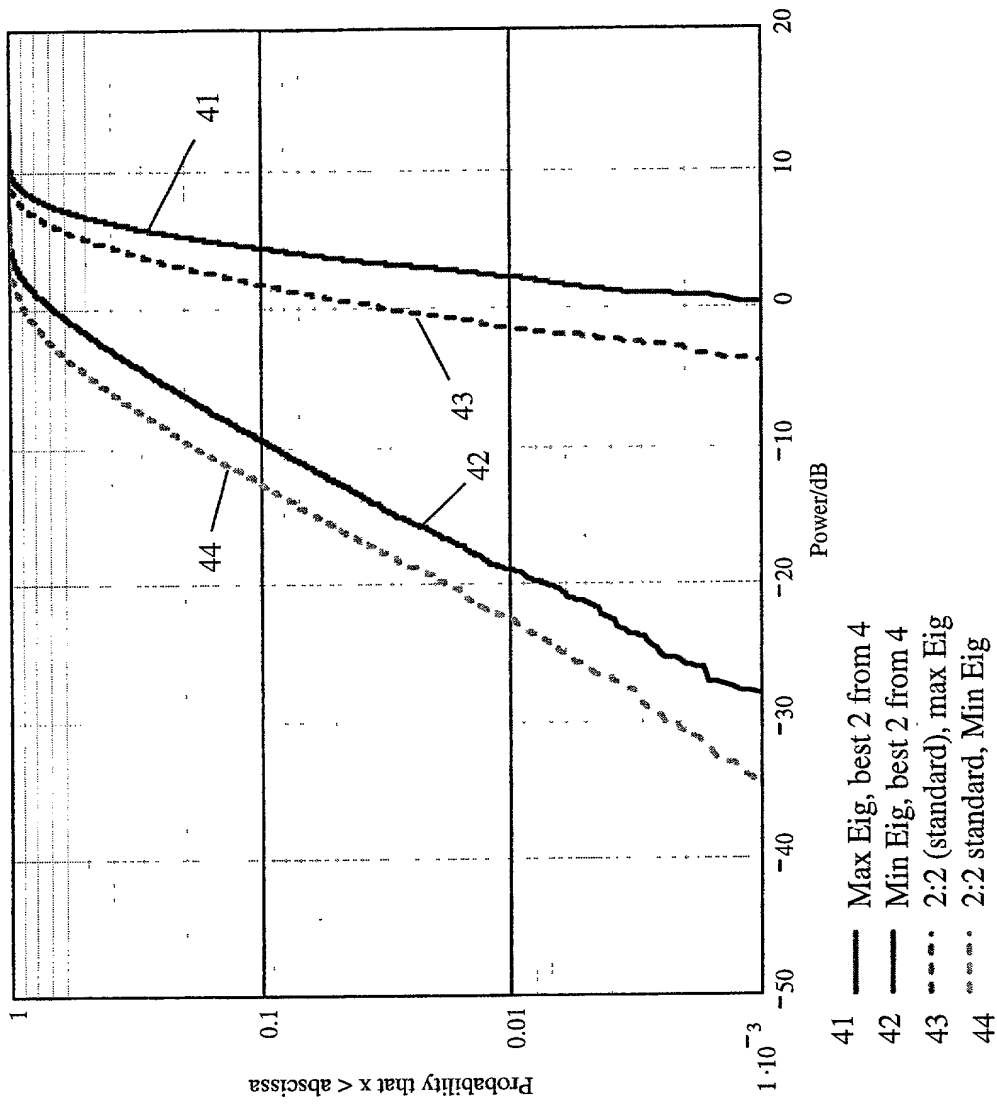


Figure 2b



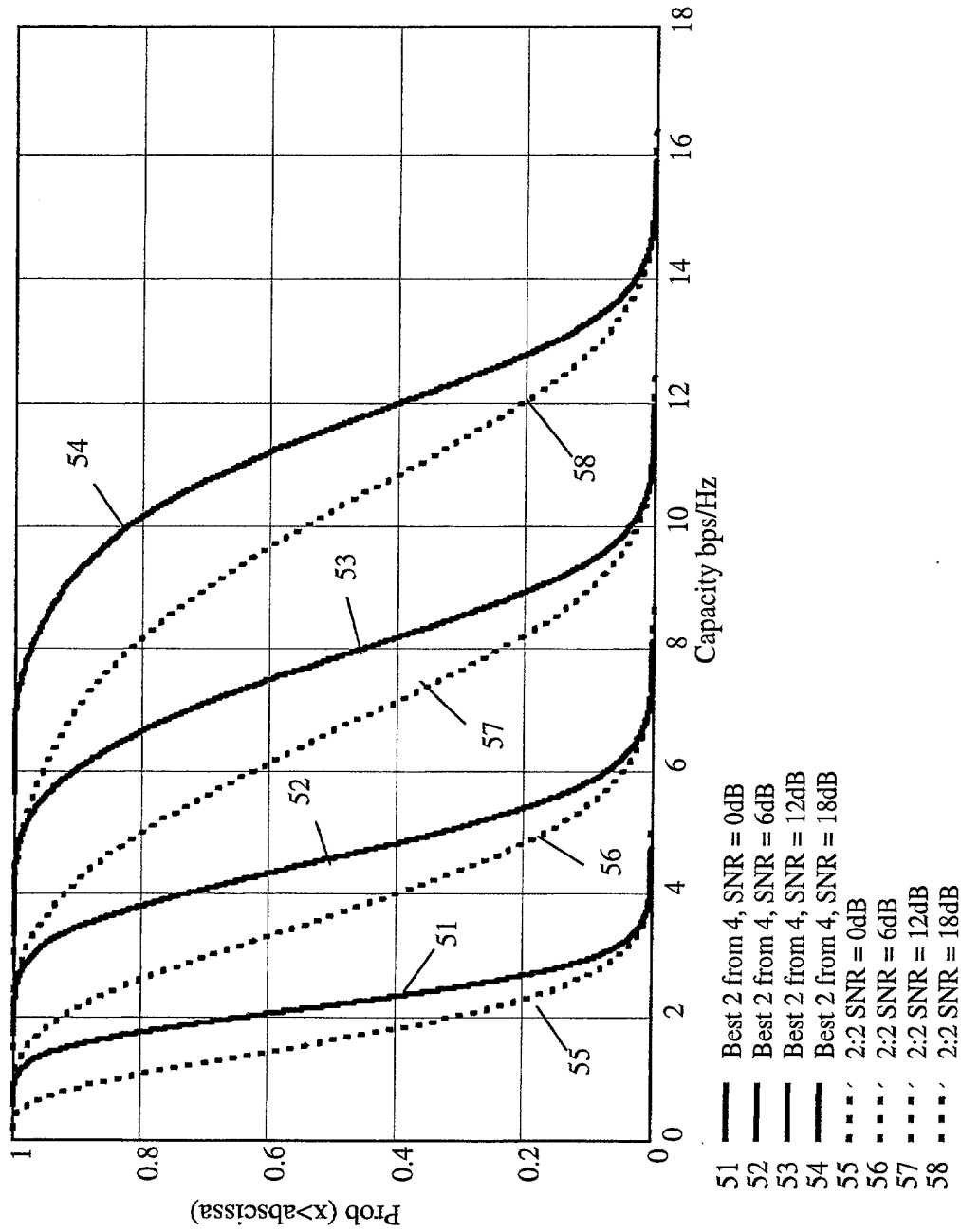
MIMO configuration with 2 Node B antennas and 4 UE antennas

Figure 3



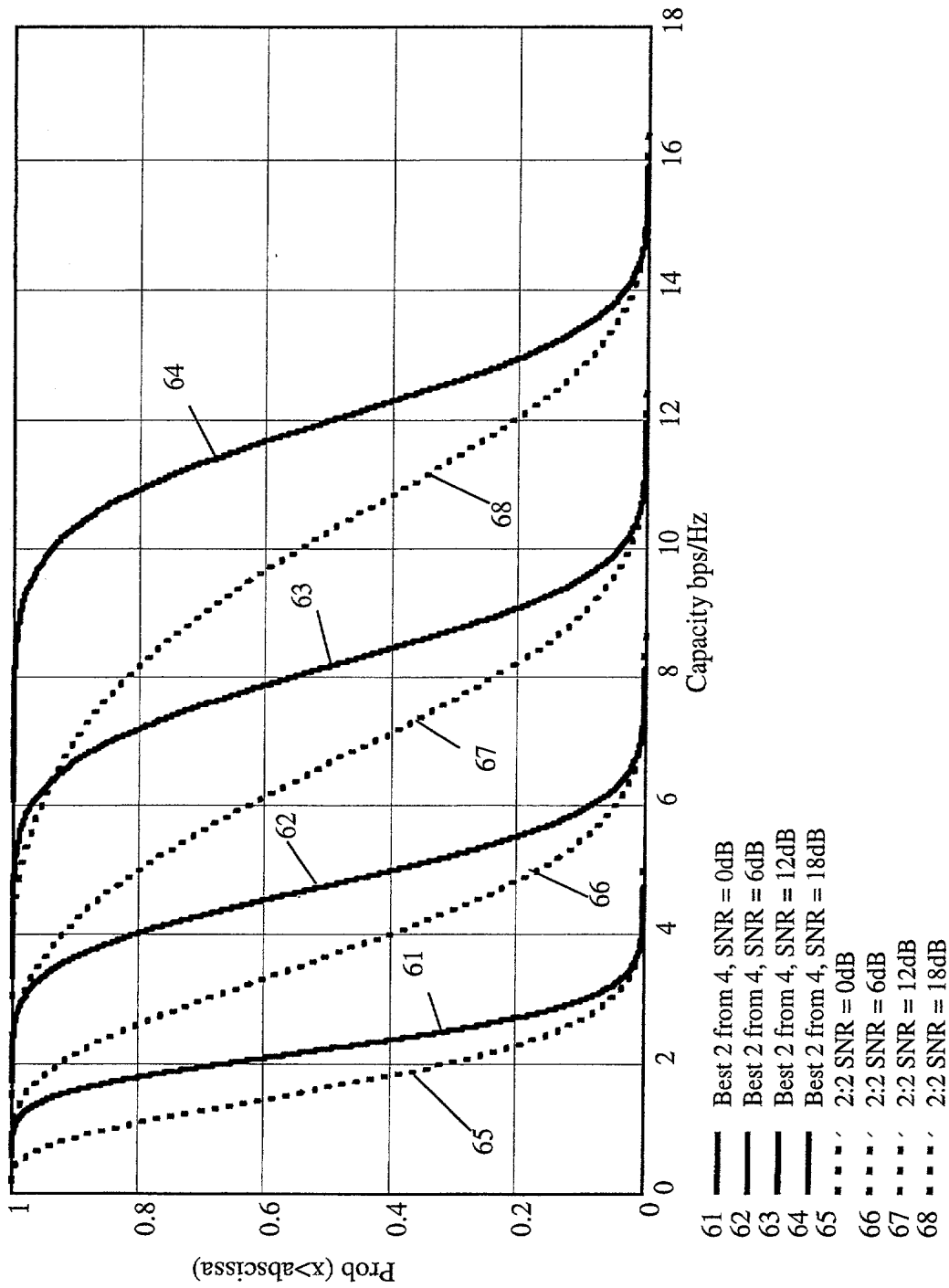
Comparison of eigenvalues for standard 2:2 MIMO and eigenvalue selection diversity (best 2 from 4) using the maximum sum of eigenvalues as the selection metric.

Figure 4



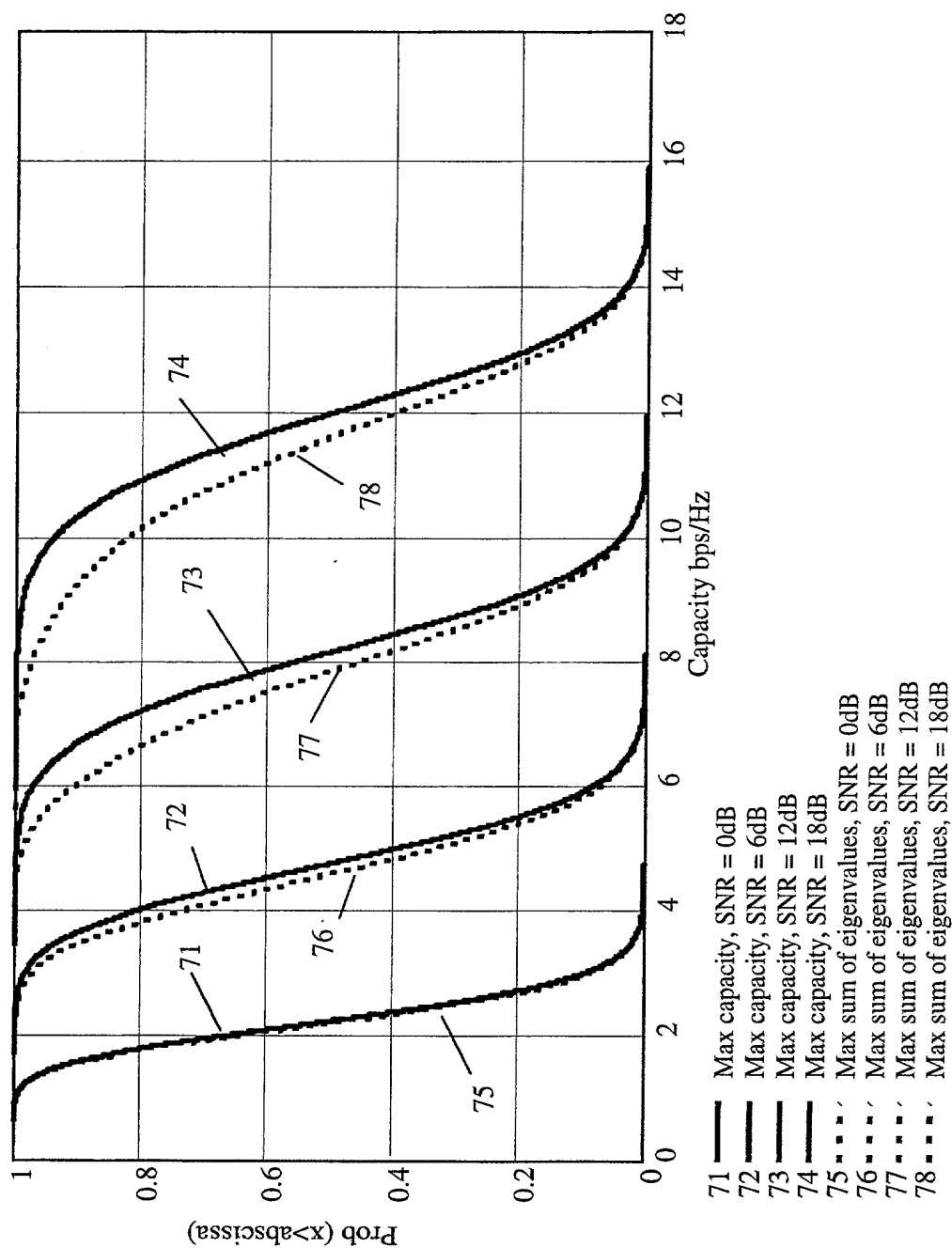
Comparison of capacity distributions for standard 2:2 MIMO and eigenvalue selection diversity (best 2 from 4) using the maximum sum of eigenvalues as the selection metric.

Figure 5



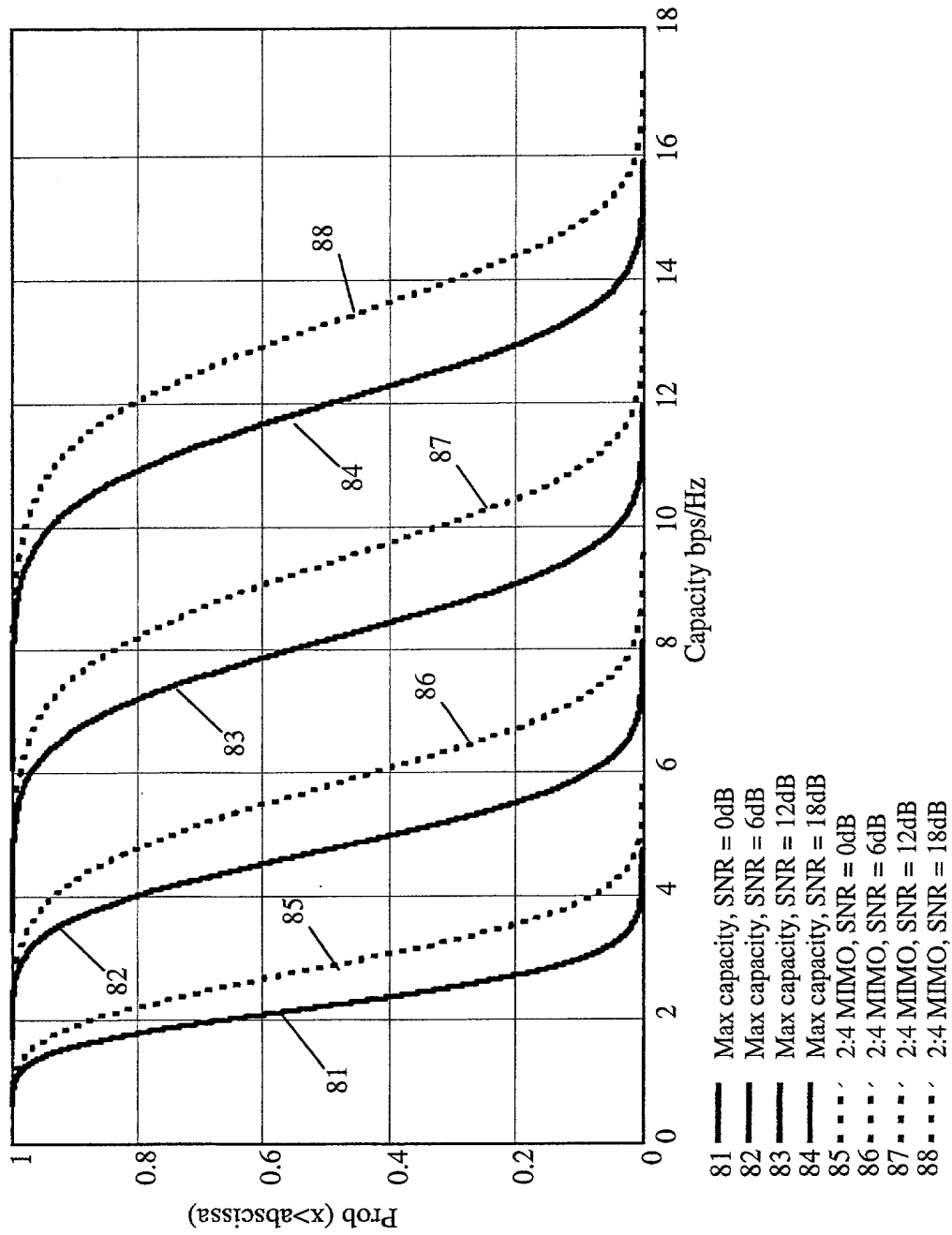
Comparison of capacity distributions for standard 2:2 MIMO and eigenvalue selection diversity (best 2 from 4) using the maximum instantaneous link capacity as the selection metric.

Figure 6



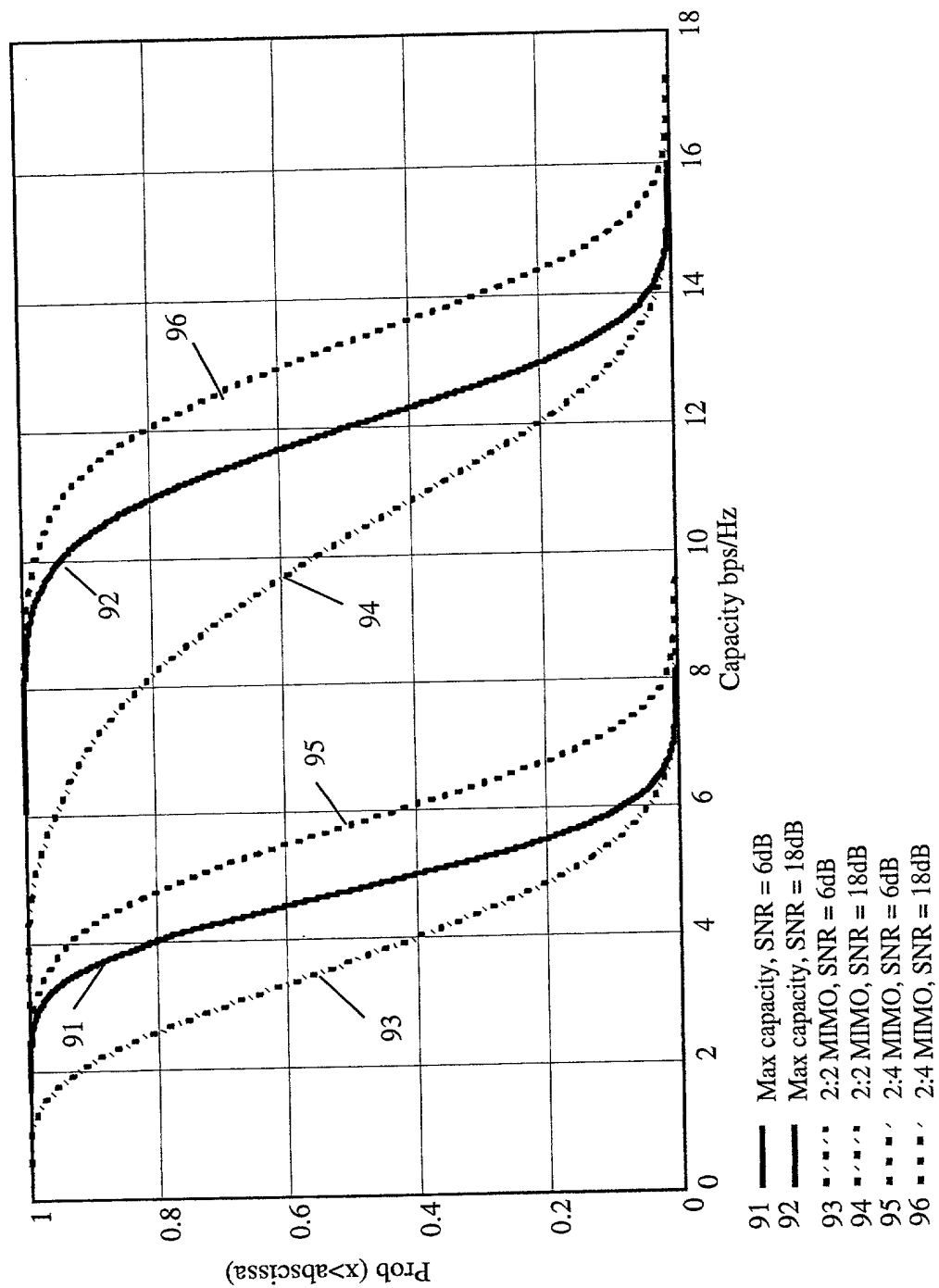
Comparison of capacity distributions for the two eigenvalue selection diversity schemes

Figure 7



Comparison of 'maximum capacity' eigenvalue selection diversity and standard 2:4 MIMO capacity distributions.

Figure 8



Comparison of maximum capacity eigenvalue selection diversity with 2:2 and 2:4 MIMO capacity curves

Figure 9

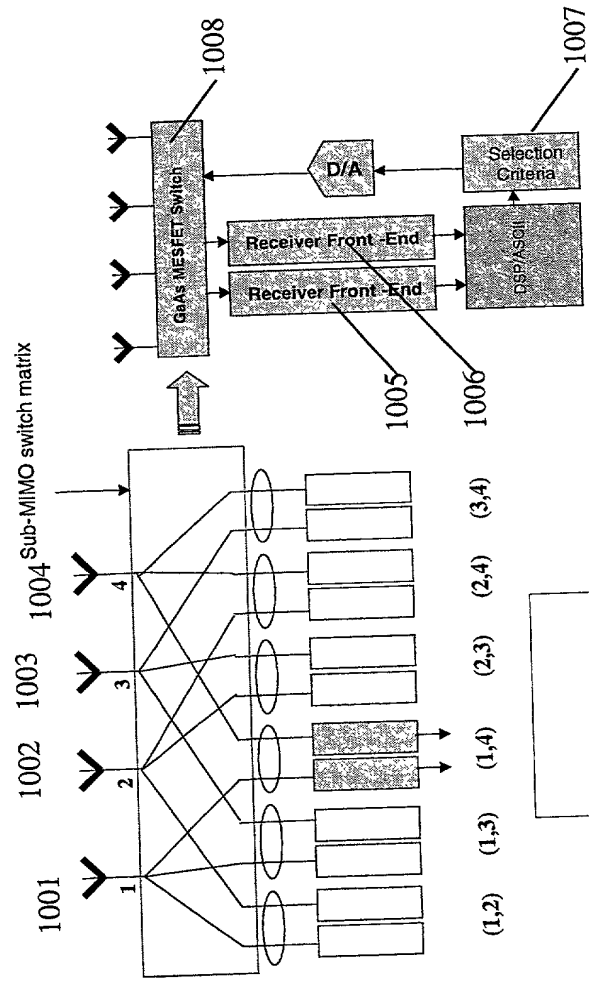


Figure 10a

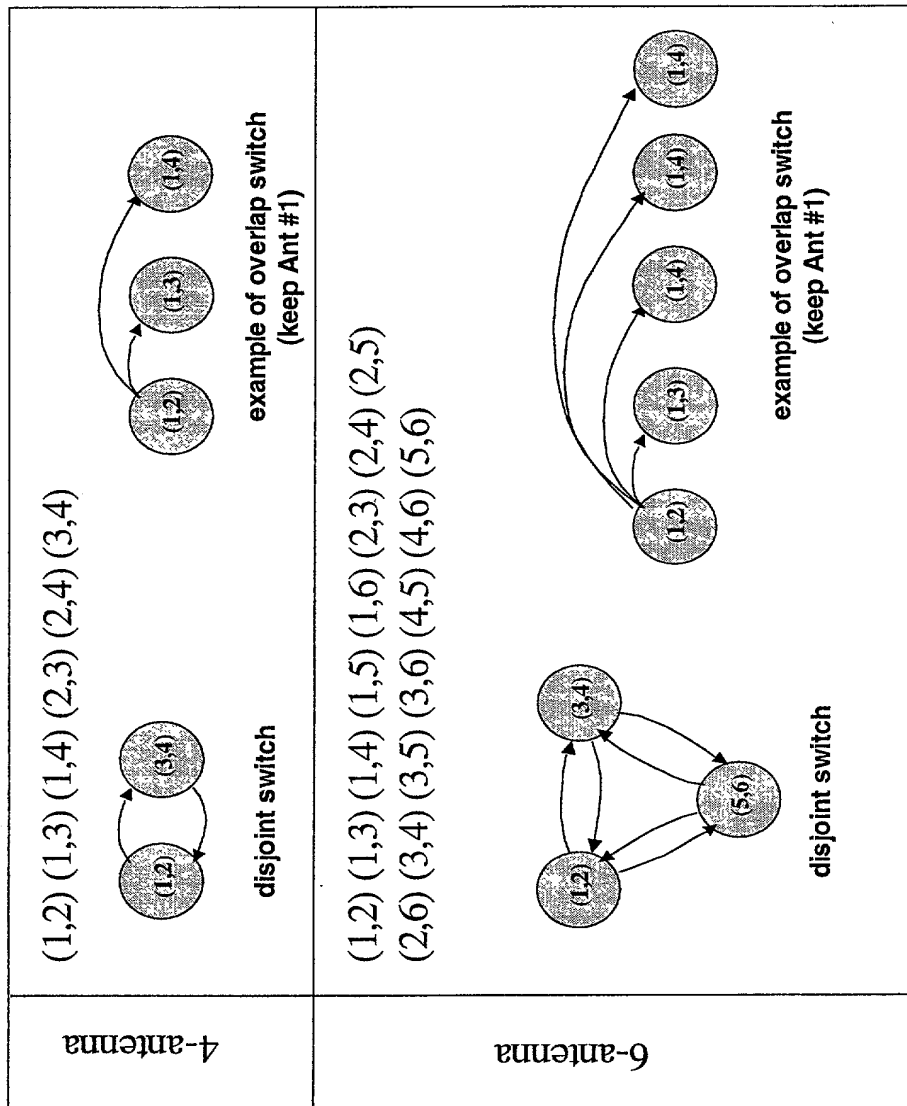


Figure 10b

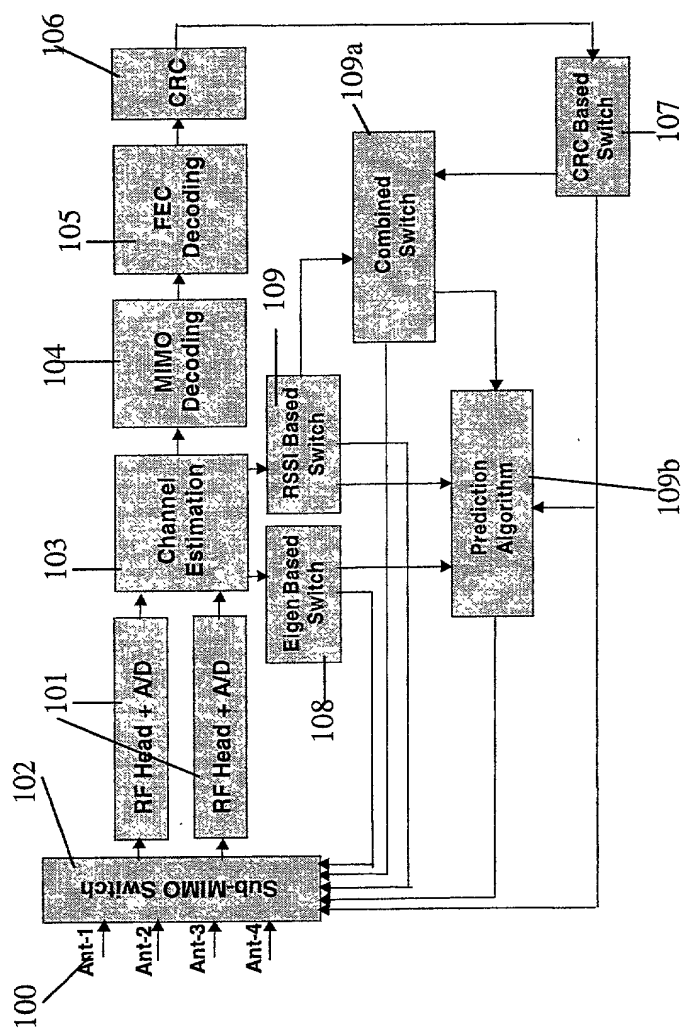


Figure 10c

Sub-MIMO Switching Comparison (STTD, ITU-VA, 100km/h, QPSK, R=1/3)

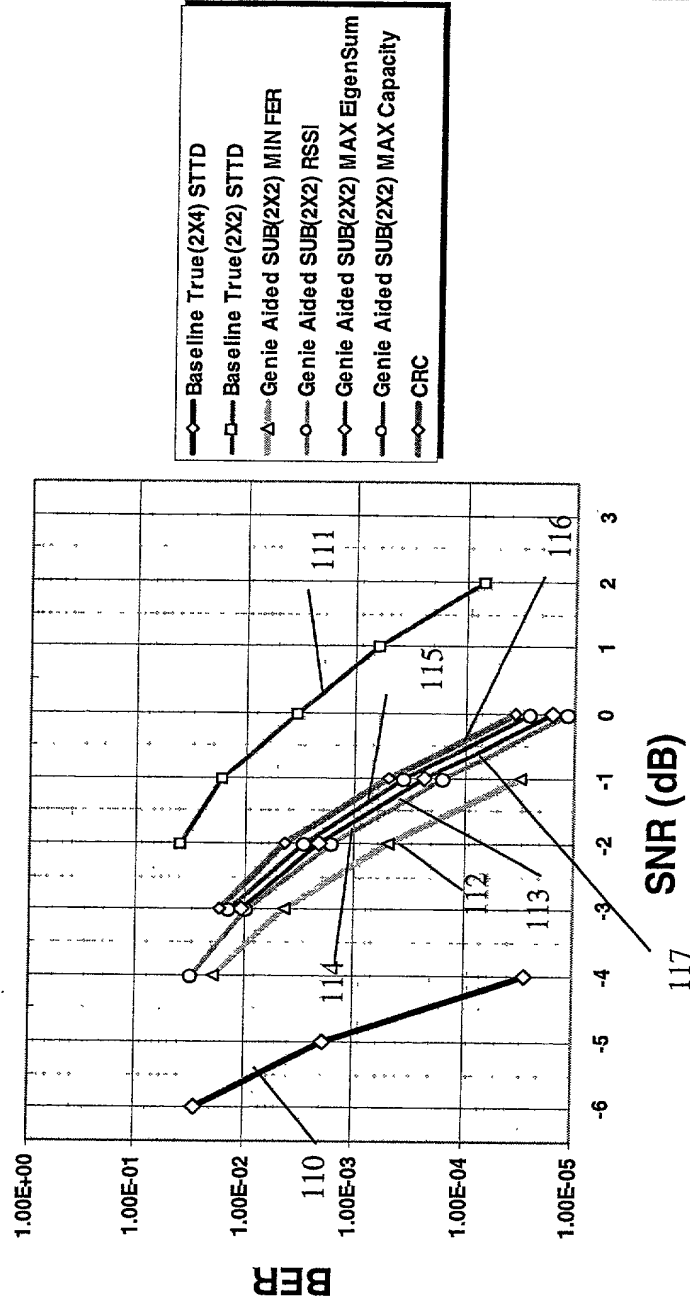


Figure 11

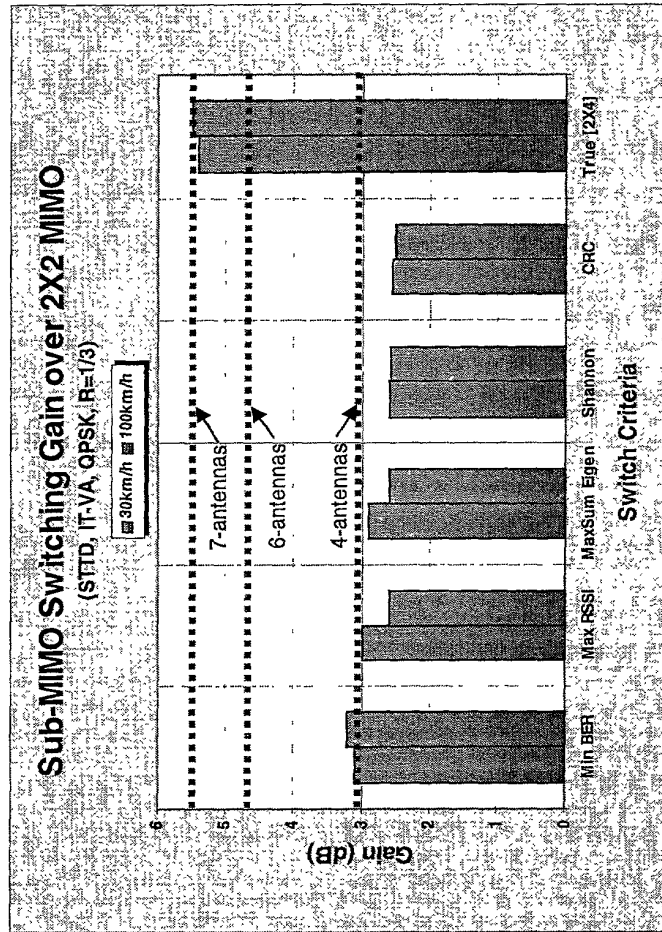


Figure 12

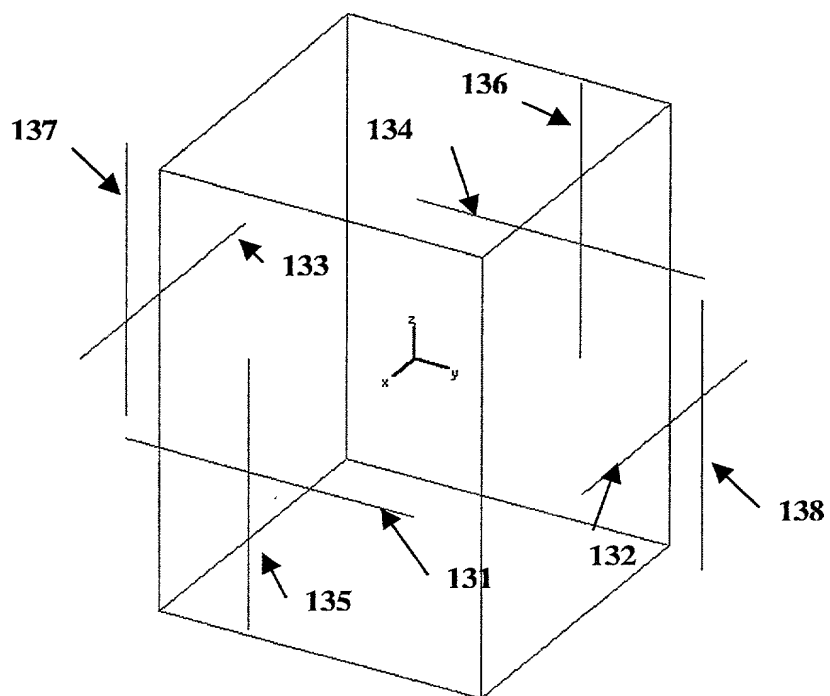


Figure 13

16/20

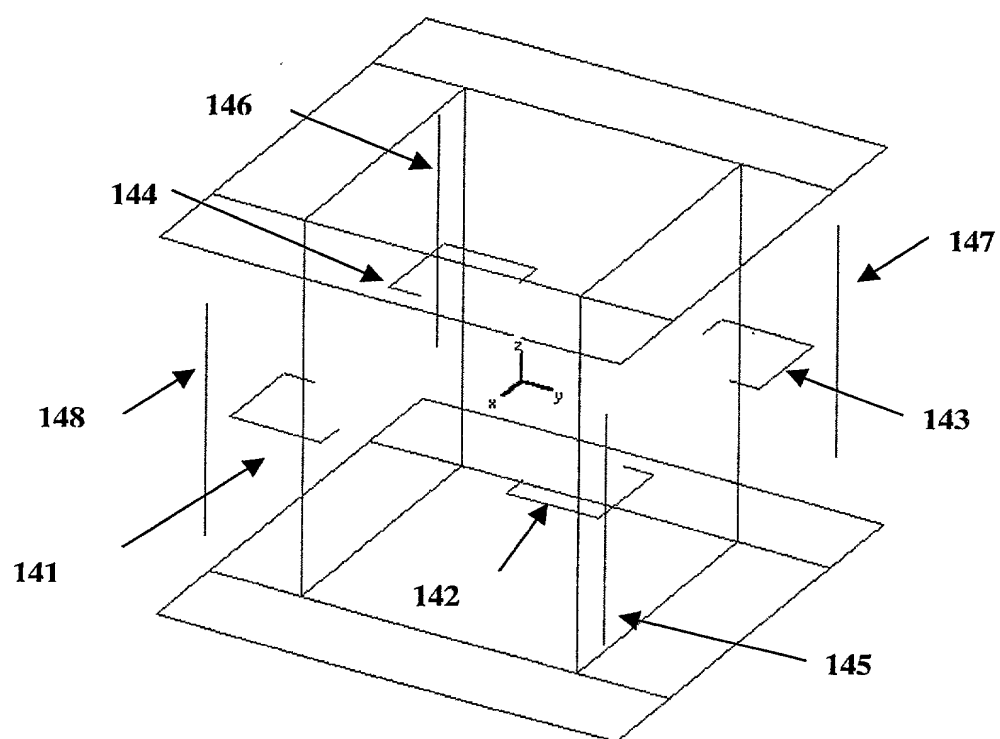
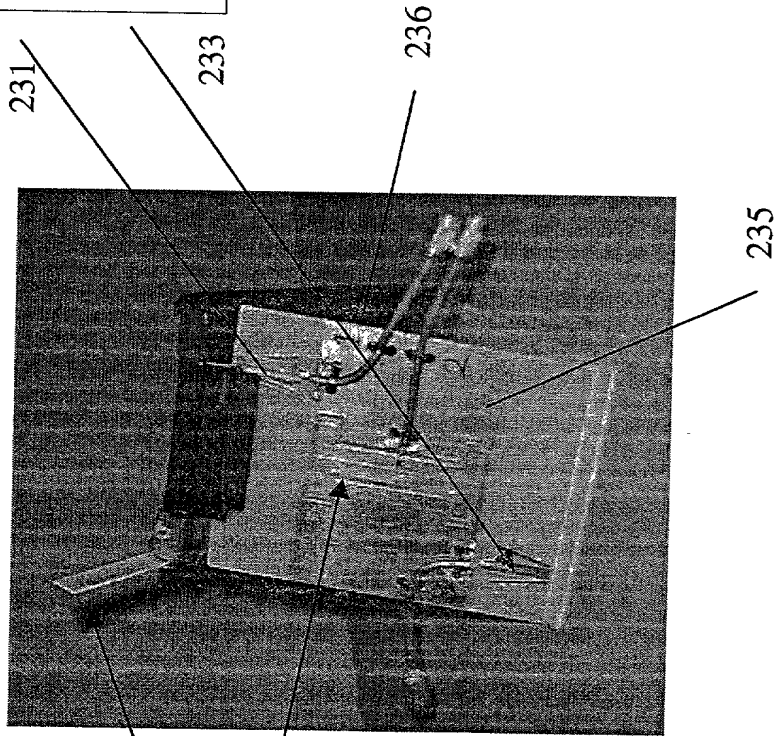


Figure 14

| | Configuration 1 | | Configuration 2 | | |
|--|-----------------|-----|-----------------|-----|--|
| | | | | | |
| Average signal level (dB) | 180° | 4.6 | 180° | 3.9 | |
| | 90° | 6.7 | 90° | 4.8 | |
| Signal level spread (dB) | 180° | 1.4 | 180° | 1.5 | |
| | 90° | 0.5 | 90° | 0.3 | |
| Average standard deviation (dB) | 180° | 4.1 | 180° | 1.7 | |
| | 90° | 1.4 | 90° | 0.4 | |
| Lowest maximum achievable diversity gain (dB) (unit 0° orientation) | 11.5 | | 15 | | |
| Lowest maximum achievable diversity gain (dB) (unit 45° orientation) | 14.5 | | 14 | | |

Figure 15

Elements 231 & 233 – umbrella monopoles polarised at nominally +45 .



Element 232 – folded slot & 234 – monopole, which are nominally polarised to -45 .

FIGURE 16

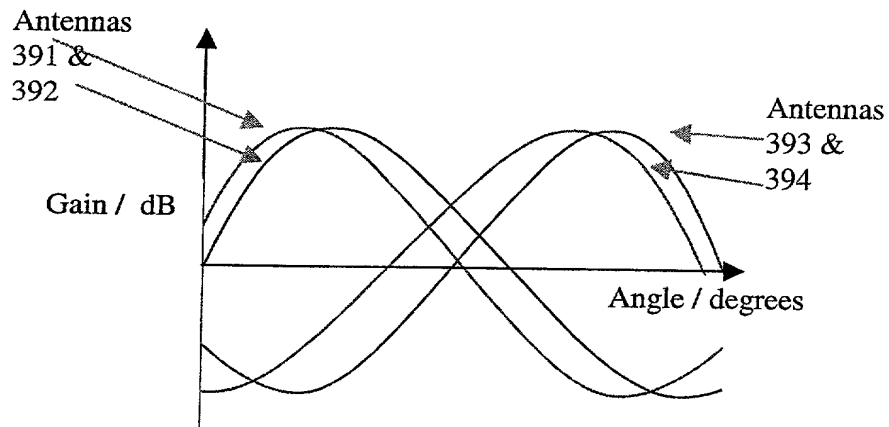


Figure 17

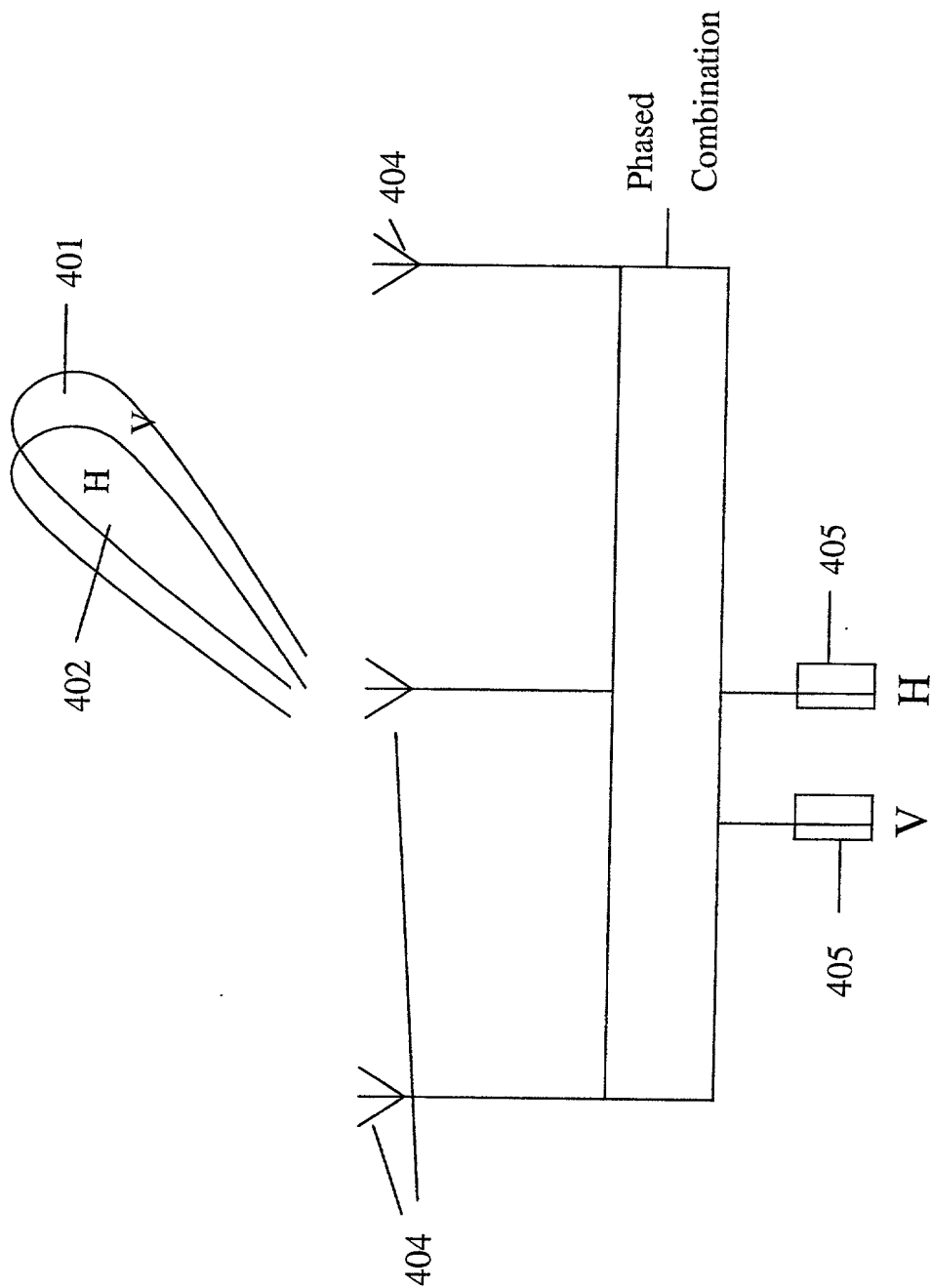


FIGURE 18